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Severe acute respiratory syndrome coronavirus 2 in pregnancy: symptomatic pregnant women are only the tip of the iceberg



TO THE EDITORS: Pregnant women present a unique challenge during the coronavirus disease 2019 (COVID-19) pandemic because they have multiple encounters with healthcare workers (HCWs) and most are admitted to hospitals for delivery. Universal screening of this population, therefore, has several potential benefits: reducing the risk of asymptomatic transmission to HCWs and other pregnant women, early patient isolation and use of appropriate personal protective equipment, and improving the understanding of perinatal transmission.^{1,2} The prevalence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in pregnant women admitted for delivery in 1 New York hospital between March 22, 2020, and April 4, 2020, was 15.4% (33 of 215), and of these 33 women, 29 (88%) were asymptomatic.³ Such a high proportion of asymptomatic infection was unexpected and raises questions about infection control practices in hospitals that do not routinely screen for SARS-CoV-2 in women presenting for delivery. It is also not known whether this rate is generalizable to other pregnant populations.

In London, United Kingdom, pregnant women admitted to The Portland Hospital for Women and Children have been universally screened for SARS-CoV-2 using reverse transcription polymerase chain reaction (nasopharyngeal swab) since March 27, 2020. The Portland Hospital provides maternity care to approximately 1300 women per year. During the COVID-19 pandemic, the hospital supported National Health Service maternity units by planned cesarean deliveries. Women who had a positive result and their newborns received care as per hospital protocol for COVID-19.

As of April 20, 2020, 129 women were tested on admission; 9 (7.0%) had a positive test result, and of these 9 women, 8 (88.9%) were asymptomatic. One symptomatic woman with fever and cough was isolated from admission and subsequently had a positive test result. The median age of these women was 34 years, and the proportion of asymptomatic SARS-CoV-2-positive pregnant women aged >34 years was 7.0% (4 of 57) compared with 5.6% (4 of 67) in those aged ≤34 years ($P=.75$) (Figure). The proportion of asymptomatic SARS-CoV-2-positive women was 6.3% (5 of 79) in white, 20% (2 of 10) in Asian, 3.4% (1 of 29) in women of mixed and other ethnic origins, and none in 10 Afro-Caribbean women. We assessed quintiles of deprivation based on post-code; 1 of 26 (3.8%) in quintile group 5 (most deprived) had a positive test result compared with none in quintile group 1 (least deprived) ($n=17$) ($P>.05$). None of the asymptomatic SARS-CoV-2-positive women had comorbidities. Only 1 woman had asthma and had a negative result for SARS-CoV-2. None of the asymptomatic SARS-CoV-2-positive women

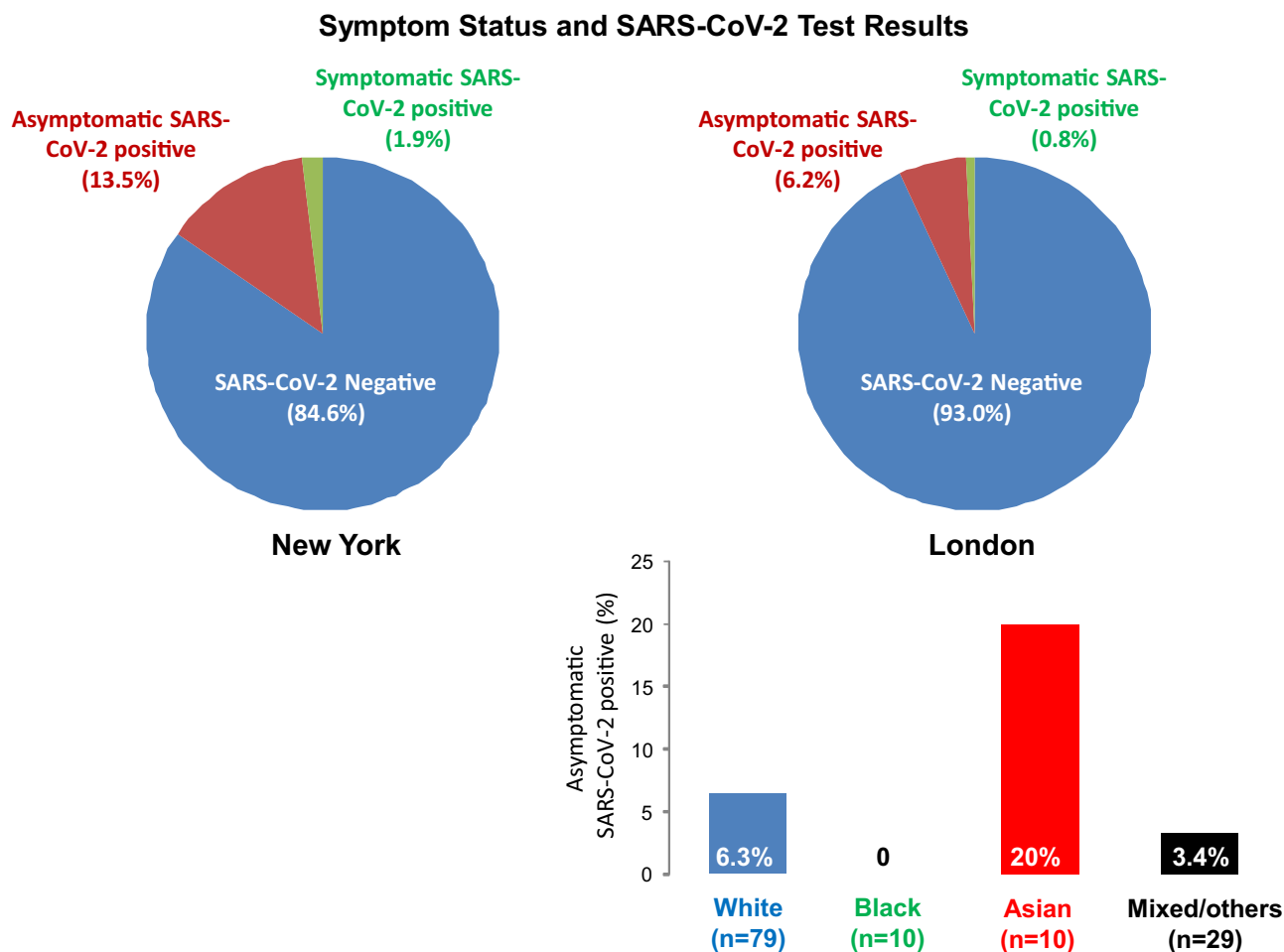
developed COVID-19 symptoms or adverse perinatal outcomes (median length of stay, 2 days). All babies were well at birth and at discharge.

In London, during the peak of the COVID-19 pandemic, 7.0% of pregnant women attending hospital for delivery had a positive test result for SARS-CoV-2, and 8 of these 9 women were asymptomatic. The prevalence of SARS-CoV-2 infection was half of that reported in New York: possible explanations include (1) lower community transmission in London, which did not experience the same intensity of the pandemic as New York, and (2) differences in the case mix of women attending the 2 hospitals, including ethnicity mix, which has been identified as a significant factor associated with risk, severity, and outcomes of COVID-19.⁴ Remarkably, the proportion of asymptomatic SARS-CoV-2-positive women was similar between the 2 cohorts.³ Although it is reassuring that all asymptomatic women and their babies remained well, the high proportion of asymptomatic SARS-CoV-2-positive women raises important questions about infection control and nosocomial transmission because severe disease and fatal outcomes have been reported among both HCWs and some pregnant women.⁵ Our findings add to the growing body of evidence showing high rates of asymptomatic infection in healthcare settings and highlight a critical need for universal screening of pregnant women. ■

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FIGURE**Symptom status and SARS-CoV-2 test results**

SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

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This communication has been published in the middle of the COVID-19 pandemic and is available via expedited publication to assist patients and healthcare providers.

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